

VOLUME 3 – STANDARD DRAWINGS & SPECIFICATIONS

CHAPTER 3 – STANDARD TITLE SHEETS

(IN ADDITION TO THE REQUIREMENTS OF CHAPTER 15.16 OF THE CARLSBAD MUNICIPAL CODE.)

- THE OWNER/APPLICANT SHALL INSURE THAT ALL CONTRACTORS SHALL COORDINATE THE WORK OF THESE GRADING PLANS WITH THAT SHOWN ON BOTH THE LANDSCAPE AND IRRIGATION PLANS AND THE IMPROVEMENT PLANS AS REQUIRED FOR THIS WORK IN ACCORDANCE WITH THE LANDSCAPE MANUAL TIME REQUIREMENTS.
30. STORM DRAIN PIPE SHALL BE REINFORCED CONCRETE PIPE WITH A MINIMUM D-LOAD OF 1,350. FOR PRIVATE STORM DRAIN PIPES, UP TO 15" PVC MAY BE UTILIZED PROVIDED DEPTH IS LESS THAN 15 FEET AND BACKFILLED WITH 3/4" ROCK PER SDR5 S-4 TYPE "C" AND PIPE MEETS ASTM STANDARD 3034 FOR SDR 35 SOLID WALL PIPE.
31. WHERE AN EXISTING PIPE LINE IS TO BE ABANDONED AS A RESULT OF THE GRADING OPERATION, IT SHALL BE REMOVED WITHIN TWO FEET OF BUILDING OR STREET AREAS AND REPLACED WITH PROPERLY COMPACTED SOILS. IN OTHER AREAS THE PIPE WILL BE PLUGGED WITH CONCRETE OR REMOVED AS APPROVED BY THE CITY ENGINEER.
32. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING FACILITIES (ABOVE GROUND AND UNDER GROUND) WITHIN THE PROJECT SITE SUFFICIENTLY AHEAD OF GRADING TO PERMIT THE REVISION OF THE GRADING PLANS IF IT IS FOUND THAT THE ACTUAL LOCATIONS ARE IN CONFLICT WITH THE PROPOSED WORK.
33. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITY COMPANIES (SEE BELOW) AT LEAST 2 FULL WORKING DAYS PRIOR TO STARTING GRADING NEAR THEIR FACILITIES AND SHALL COORDINATE THE WORK WITH A COMPANY REPRESENTATIVE.
- UNDERGROUND SERVICE ALERT (800)422-4133
SD&E (800)660-7343
PACIFIC BELL (800)992-0123
TIME WARNER CABLE (760)438-7741
COX COMMUNICATIONS (760)906-9809
CITY OF CARLSBAD(STREETS & STORM DRAIN) (760)434-2980
*CITY OF CARLSBAD(SEWER,WATER & RECLAIMED WATER) (760)438-2722
*SAN DIEGUIO WATER DISTRICT (760)633-2650
*ELUCADIA WASTEWATER DISTRICT (760)753-0155
*VALLECITOS WATER DISTRICT (760)744-0460
*OLIVENHAIN WATER DISTRICT (760)753-6466
*BUENA SANITATION DISTRICT (760)726-1340
- *AS APPROPRIATE
34. PERMIT COMPLIANCE REQUIREMENTS:
- A. FOR CONTROLLED GRADING - THE APPLICANT HIRES A CIVIL ENGINEER, SOILS ENGINEER, AND/OR GEOLOGIST TO GIVE TECHNICAL ADVICE, OBSERVE AND CONTROL THE WORK IN PROGRESS {15.16.120 A.8} CARLSBAD MUNICIPAL CODE.
- B. PRIOR TO FINAL APPROVAL OF A GRADING PERMIT - THE FOLLOWING REPORTS MUST BE SUBMITTED TO THE CITY ENGINEER VIA THE PROJECT INSPECTOR {15.16.120 A.10} CARLSBAD MUNICIPAL CODE:
- (1) FINAL REPORT BY SUPERVISING GRADING ENGINEER STATING ALL GRADING IS COMPLETE. ALL EROSION CONTROL, SLOPE PLANTING AND IRRIGATION ARE INSTALLED IN CONFORMANCE WITH CITY CODE AND THE APPROVED PLANS (OBTAIN SAMPLE OF COMPLIANCE LETTER FROM CITY ENGINEERING DEPARTMENT).
- (2) AS-BUILT GRADING PLAN.
- (3) REPORT FROM THE SOILS ENGINEER, WHICH INCLUDES RECOMMENDED SOIL BEARING CAPACITIES, A STATEMENT AS TO THE EXPANSIVE QUALITY OF THE SOIL, AND SUMMARIES OF FIELD AND LABORATORY TESTS. THE REPORT SHALL ALSO INCLUDE A STATEMENT BY THE SOILS ENGINEER THAT THE GRADING WAS DONE IN ACCORDANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS OUTLINED IN THE PRELIMINARY SOILS REPORT AND ANY SUPPLEMENTS THERETO.
- (4) REPORT WITH AS-BUILT GEOLOGIC PLAN, IF REQUIRED BY THE CITY.
35. UNLESS A GRADING PERMIT FOR THIS PROJECT IS ISSUED WITHIN ONE (1) YEAR AFTER THE CITY ENGINEER'S APPROVAL, THESE PLANS MAY BE REQUIRED TO BE RESUBMITTED FOR PLANCHECK. PLANCHECK FEES WILL BE REQUIRED FOR ANY SUCH RECHECK.
36. THE SOILS REPORT TITLED _____, DATED _____, PREPARED BY _____, SHALL BE CONSIDERED AS A PART OF THIS GRADING PLAN. ALL GRADING SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN SAID SOILS REPORT.
- "DECLARATION OF RESPONSIBLE CHARGE"**
- I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.
- I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF CARLSBAD DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.
- FIRM: _____
ADDRESS: _____
CITY, STATE: _____
TELEPHONE: _____
BY: _____ DATE: _____
(NAME OF ENGINEER)
- R.C.E. NO.: _____
REGISTRATION EXPIRATION DATE: _____
- SOILS ENGINEER'S CERTIFICATE**
- I, _____, A REGISTERED (CIVIL/GEOTECHNICAL) ENGINEER OF THE STATE OF CALIFORNIA, PRINCIPALLY DOING BUSINESS IN THE FIELD OF APPLIED SOILS MECHANICS, HEREBY CERTIFY THAT A SAMPLING AND STUDY OF THE SOIL CONDITIONS PREVALENT WITHIN THIS SITE WAS MADE BY ME OR UNDER MY DIRECTION BETWEEN THE DATES OF _____, 20____ AND _____, 20____. TWO COPIES OF THE SOILS REPORT COMPILED FROM THIS STUDY, WITH MY RECOMMENDATIONS, HAS BEEN SUBMITTED TO THE OFFICE OF THE CITY ENGINEER.
- SIGNED: _____
G.E./P.E. NO.: _____
DATE: _____
LICENSE EXPIRATION DATE: _____
- OWNER'S CERTIFICATE**
- I (WE) HEREBY CERTIFY THAT A REGISTERED SOILS ENGINEER OR GEOLOGIST HAS BEEN OR WILL BE RETAINED TO SUPERVISE OVER-ALL GRADING ACTIVITY AND ADVISE ON THE COMPACTION AND STABILITY OF THIS SITE.
- _____
(PRINT NAME BELOW LINE) DATE _____
- SOURCE OF TOPOGRAPHY**
- TOPOGRAPHY SHOWN ON THESE PLANS WAS GENERATED BY _____, _____ METHODS FROM INFORMATION GATHERED ON _____, _____ BY _____.
- TOPOGRAPHY SHOWN HEREON CONFORMS TO NATIONAL MAP PROJECTION STANDARDS.
- PURPOSE LOCATION**
- THIS PROJECT IS LOCATED WITHIN ASSESSORS' PARCEL NUMBER(S) _____.
- THE CALIFORNIA COORDINATE INDEX OF THIS PROJECT IS: _____.

1. IN CASE EMERGENCY WORK IS REQUIRED, CONTACT _____ AT _____ (PHONE NUMBER)
2. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS EMINENT.
3. DEVICES SHOWN ON PLANS SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE ENGINEERING INSPECTOR.
4. THE CONTRACTOR SHALL RESTORE ALL EROSION CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.
5. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE CITY ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES WHICH MAY ARISE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
7. ALL EROSION CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREON.
8. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
9. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE FIVE (5) DAY RAIN PROBABILITY FORECAST EXCEEDS FORTY PERCENT (40%). SILT AND OTHER DEBRIS SHALL BE REMOVED AFTER EACH RAINFALL.
10. ALL GRAVEL BAGS SHALL BE BURLAP TYPE WITH 3/4 INCH MINIMUM AGGREGATE.
11. SHOULD GERMINATION OF HYDRAULIC SLOPES FAIL TO PROVIDE EFFECTIVE COVERAGE OF GRADED SLOPES (90% COVERAGE) PRIOR TO NOVEMBER 15, THE SLOPES SHALL BE STABILIZED BY PUNCH STRAW INSTALLED IN ACCORDANCE WITH SECTION 35.023 OF THE EROSION AND SEDIMENT CONTROL HANDBOOK OF THE DEPARTMENT OF CONSERVATION, STATE OF CALIFORNIA.

ALL PERMANENT AND TEMPORARY EROSION CONTROL PLANTING AND IRRIGATION SHALL BE INSTALLED AND MAINTAINED AS REQUIRED IN SECTION 212 OF THE STANDARD SPECIFICATIONS AND THE FOLLOWING:

- [illegible]

THE GRADING WORK SHALL CONSIST OF THE CONSTRUCTION OF ALL CUTS AND FILLS, REMEDIAL GRADING, DRAINAGE FACILITIES, EROSION CONTROL FACILITIES, AND PLANTING OF PERMANENT LANDSCAPING AND PREPARATION OF AS-BUILT GRADING PLANS. AS-BUILT GEOLOGIC MAPS AND REPORTS, ALL AS SHOWN OR REQUIRED ON THIS SET OF PLANS AND THE CITY STANDARDS, SPECIFICATIONS, REQUIREMENTS, RESOLUTIONS AND ORDINANCES CITED ON THESE PLANS.

THE GRADING WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING DOCUMENTS, CURRENT AT THE TIME OF CONSTRUCTION, AS DIRECTED BY THE CITY ENGINEER.

1. CARLSBAD MUNICIPAL CODE
2. CITY OF CARLSBAD ENGINEERING STANDARDS
3. THIS SET OF PLANS
4. RESOLUTION NO. _____ DATED _____
5. THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK).
6. SOILS REPORT AND RECOMMENDATIONS BY _____
DATED _____
7. THE SAN DIEGO REGIONAL STANDARD DRAWINGS AND AS MAY BE MODIFIED BY THE CITY OF CARLSBAD STANDARDS.
8. CALIFORNIA COASTAL COMMISSION DEVELOPMENT PERMIT CONDITIONS
DATED _____
9. ENVIRONMENTAL APPROVAL DOCUMENTS DATED _____
10. STORM WATER POLLUTION PREVENTION PLAN PREPARED
BY _____ DATED _____
WDID NO. 9 375 _____
11. STORM WATER MANAGEMENT PLAN PREPARED
BY _____ DATED _____
12. CALIFORNIA STORM WATER QUALITY ASSOCIATION BMP CONSTRUCTION HANDBOOK AND
CALTRANS CONSTRUCTION SITE BMP MANUAL.

DESCRIPTION: _____
LOCATION: _____
RECORDED: _____
ELEVATION: _____ DATUM: _____

CUT: _____ CY
 FILL: _____ CY
 IMPORT: _____ CY
 EXPORT: _____ CY
 REMEDIAL: _____ CY

SUSMP PROJECT PRIORITY _____

					SHEET	CITY OF CARLSBAD ENGINEERING DEPARTMENT	SHEETS
					GRADING AND EROSION CONTROL PLANS FOR:		
					TITLE SHEET		
					APPROVED: DAVID A. HAUSER		
					DEPUTY CITY ENGINEER PE 33081 EXPIRES 6/30/08 DATE _____		
					DWN BY: _____ CHKD BY: _____ RVWD BY: _____	PROJECT NO.	DRAWING NO.
DATE	INITIAL				DATE	INITIAL	
ENGINEER OF WORK	REVISION DESCRIPTION			OTHER APPROVAL	DATE	INITIAL	

GENERAL NOTES

1. THIS PLAN SUPERSEDES ALL OTHER PLANS PREVIOUSLY APPROVED BY THE CITY OF CARLSBAD REGARDING IMPROVEMENTS SHOWN ON THIS SET OF PLANS.
2. APPROVAL OF THIS PLAN DOES NOT LESSEN OR WAIVE ANY PORTION OF THE CARLSBAD MUNICIPAL CODE, RESOLUTION OF CONDITIONAL APPROVAL, CITY STANDARDS OR OTHER ADDITIONAL DOCUMENTS LISTED HEREON AS THEY MAY PERTAIN TO THIS PROJECT. THE ENGINEER IN RESPONSIBLE CHARGE SHALL REVISE THESE PLANS WHEN NON-CONFORMANCE IS DISCOVERED.
3. CITY APPROVAL OF PLANS DOES NOT RELIEVE THE DEVELOPER OR ENGINEER-OF-WORK FROM RESPONSIBILITY FOR THE CORRECTION OF ERRORS AND OMISSIONS DISCOVERED DURING CONSTRUCTION. ALL PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
4. A RIGHT-OF-WAY PERMIT FROM THE CITY ENGINEER WILL BE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT OF WAY. PRIOR TO PERMIT ISSUANCE, A CERTIFICATE OF INSURANCE MUST BE FILED NAMING THE CITY OF CARLSBAD AS AN ADDITIONAL INSURED ON THE PERMITTEE'S POLICY IN THE MINIMUM AMOUNT OF \$1,000,000.00 FOR EACH OCCURRENCE OF LIABILITY. THE INSURANCE COMPANY WRITING THE POLICY MUST HAVE A RATING OF "A- OR BETTER AND A SIZE CATEGORY OF CLASS V OR BETTER AS ESTABLISHED BY "BEST'S" KEY RATING GUIDE.
5. NO WORK SHALL BE COMMENCED UNTIL ALL PERMITS HAVE BEEN OBTAINED FROM THE CITY AND OTHER APPROPRIATE AGENCIES.
6. REVISION OF THESE PLANS MAY BE REQUIRED IF THE PROPOSED IMPROVEMENTS ARE NOT CONSTRUCTED PRIOR TO THE DEADLINE DATE OF THE IMPROVEMENT AGREEMENT.
7. NO REVISIONS WILL BE MADE TO THESE PLANS WITHOUT THE WRITTEN APPROVAL OF THE CITY ENGINEER, NOTED WITHIN THE REVISION BLOCK, ON THE APPROPRIATE SHEET OF THE PLANS AND TITLE SHEET.
8. ORIGINAL DRAWINGS SHALL BECOME THE PROPERTY OF THE CITY UPON BEING SIGNED BY THE CITY ENGINEER.
9. THE ORIGINAL DRAWING SHALL BE REVISED TO REFLECT AS-BUILT CONDITIONS BY THE ENGINEER-OF-WORK PRIOR TO FINAL ACCEPTANCE OF THE WORK BY THE CITY.
10. ACCESS FOR FIRE AND OTHER EMERGENCY VEHICLES SHALL BE MAINTAINED TO THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
11. WHERE TRENCHES ARE WITHIN CITY EASEMENTS, A SOILS REPORT COMPRISED OF: (A) SUMMARY SHEET, (B) LABORATORY WORK SHEETS AND (C) COMPACTION CURVES, SHALL BE SUBMITTED BY A PROFESSIONAL ENGINEER OF THE STATE OF CALIFORNIA, PRINCIPALLY DOING BUSINESS IN THE FIELD OF APPLIED SOILS MECHANICS. THE SOILS REPORT WILL BE SUBMITTED TO THE CITY ENGINEERING INSPECTOR WITHIN TWO WORKING DAYS OF COMPLETION OF FIELD TESTS. THE WRITTEN FIELD COMPACTION REPORT(S) SHALL BE IMMEDIATELY SUBMITTED TO THE CITY ENGINEERING INSPECTOR UPON COMPLETION OF THE FIELD TESTS.
12. A PRECONSTRUCTION MEETING SHALL BE HELD AT THE SITE PRIOR TO THE BEGINNING OF WORK AND SHALL BE ATTENDED BY ALL REPRESENTATIVES RESPONSIBLE FOR CONSTRUCTION, INSPECTION, SUPERVISION, TESTING AND ALL OTHER ASPECTS OF THE WORK. THE CONTRACTOR SHALL SCHEDULE THE MEETING BY CALLING THE INSPECTION LINE AT (760) 438-3891 AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING CONSTRUCTION. APPROVED DRAWINGS MUST BE AVAILABLE PRIOR TO SCHEDULING.
13. ALL INSPECTION REQUESTS OTHER THAN FOR PRECONSTRUCTION MEETING WILL BE MADE BY CALLING THE ENGINEERING 24-HOUR INSPECTION REQUEST LINE AT (760) 438-3891. INSPECTION REQUESTS MUST BE RECEIVED PRIOR TO 2:00 P.M. ON THE DAY BEFORE THE INSPECTION IS NEEDED. INSPECTIONS WILL BE MADE THE NEXT WORK DAY UNLESS YOU REQUEST OTHERWISE. REQUESTS MADE AFTER 2:00 P.M. WILL BE SCHEDULED FOR TWO FULL WORK DAYS LATER.
14. THE OWNER AND/OR APPLICANT THROUGH THE DEVELOPER AND/OR CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
15. THE CONTRACTOR SHALL CONFORM TO LABOR CODE SECTION 6705 BY SUBMITTING A DETAIL PLAN TO THE CITY ENGINEER AND/OR CONCERNED AGENCY SHOWING THE DESIGN OF SHORING, BRACING SLOPE OR OTHER PROVISIONS TO BE MADE OF WORKER PROTECTION FROM THE HAZARD OF CAVING GROUND DURING THE EXCAVATION OF SUCH TRENCH OR TRENCHES OR DURING THE PIPE INSTALLATION THEREIN. THIS PLAN MUST BE PREPARED FOR ALL TRENCHES FIVE FEET (5') OR MORE IN DEPTH AND APPROVED BY THE CITY ENGINEER AND/OR CONCERNED AGENCY PRIOR TO EXCAVATION. IF THE PLAN VARIES FROM THE SHORING SYSTEM STANDARDS ESTABLISHED BY THE CONSTRUCTION SAFETY ORDERS, TITLE 8 CALIFORNIA ADMINISTRATIVE CODE, THE PLAN SHALL BE PREPARED BY A REGISTERED ENGINEER AT THE CONTRACTOR'S EXPENSE. A COPY OF THE OSHA EXCAVATION PERMIT MUST BE SUBMITTED TO THE INSPECTOR PRIOR TO EXCAVATION.
16. IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED WITHIN ANY WORK ZONE DURING CONSTRUCTION, OPERATIONS WILL CEASE IMMEDIATELY, AND THE PERMITTEE WILL NOTIFY THE CITY ENGINEER. OPERATIONS WILL NOT RESTART UNTIL THE PERMITTEE HAS RECEIVED WRITTEN AUTHORITY FROM THE CITY ENGINEER TO DO SO.
17. ALL OPERATIONS CONDUCTED ON THE SITE OR ADJACENT THERETO, INCLUDING WARMING UP, REPAIR, ARRIVAL, DEPARTURE OR OPERATION OF TRUCKS, EARTHMOVING EQUIPMENT, CONSTRUCTION EQUIPMENT AND ANY OTHER ASSOCIATED GRADING EQUIPMENT SHALL BE LIMITED TO THE PERIOD BETWEEN 7:00 A.M. AND SUNSET EACH DAY, MONDAY THRU FRIDAY AND NO EARTHMOVING OR GRADING OPERATIONS SHALL BE CONDUCTED ON WEEKENDS OR HOLIDAYS. (A LIST OF CITY HOLIDAYS IS AVAILABLE AT THE ENGINEERING DEPARTMENT COUNTER.)
18. ALL OFF-SITE HAUL ROUTES SHALL BE SUBMITTED BY THE CONTRACTOR TO THE CITY ENGINEER FOR APPROVAL TWO FULL WORKING DAYS PRIOR TO BEGINNING OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEBRIS OR DAMAGE OCCURRING ALONG THE HAUL ROUTE OR ADJACENT STREETS AS A RESULT OF THE GRADING OPERATION.
19. NO BLASTING SHALL BE COMMENCED WITHOUT A CITY ENGINEER APPROVED BLASTING PROGRAM AND BLASTING PERMIT.
20. THE EXISTENCE AND LOCATION OF UTILITY STRUCTURES AND FACILITIES SHOWN ON THE CONSTRUCTION PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. ATTENTION IS CALLED TO THE POSSIBLE EXISTENCE OF OTHER UTILITY FACILITIES OR STRUCTURES NOT SHOWN OR IN A LOCATION DIFFERENT FROM THAT SHOWN ON THE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN ON THE PLANS AND ANY OTHER EXISTING FACILITIES OR STRUCTURES NOT SHOWN.
21. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING FACILITIES (ABOVEGROUND AND UNDERGROUND) WITHIN THE PROJECT SITE SUFFICIENTLY AHEAD OF THE CONSTRUCTION TO PERMIT THE REVISIONS OF THE CONSTRUCTION PLANS IF IT IS FOUND THAT THE ACTUAL LOCATIONS ARE IN CONFLICT WITH THE PROPOSED WORK.
22. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITY COMPANIES (SEE BELOW) AT LEAST TWO FULL WORKING DAYS PRIOR TO STARTING CONSTRUCTION NEAR THEIR FACILITIES AND SHALL COORDINATE WORK WITH A COMPANY REPRESENTATIVE.

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*OULVENHAIN WATER DISTRICT (760)753-6466
*BUENA SANITATION DISTRICT (760)726-1340
* AS APPROPRIATE

STREET NOTES

1. ACTUAL STRUCTURAL SECTIONS WILL BE DETERMINED AFTER "R" VALUE TESTS HAVE BEEN CONDUCTED BY A PROFESSIONAL ENGINEER OF THE STATE OF CALIFORNIA, PRINCIPALLY DOING BUSINESS IN THE FIELD OF APPLIED SOIL MECHANICS, ON THE PREPARED BASEMENT SOIL. THE "R" VALUE TESTS AND THE ENGINEERED STRUCTURAL SECTION MUST BE SUBMITTED TO THE ENGINEERING INSPECTOR FOR REVIEW AND APPROVAL A MINIMUM OF TWO (2) CITY WORKING DAYS BEFORE THE WORK BEGINS.
2. STREET LIGHTS SHALL BE INSTALLED AS SHOWN ON THESE PLANS, UNDERGROUND CONDUIT RUNS, SERVICE POINTS AND HAND-HOLES SHALL BE SHOWN ON THE "AS-BUILT" PLANS. NO DIRECT BURIAL STREET LIGHT FOUNDATIONS WILL BE ALLOWED. ALL LUMINAIRES SHALL BE "CUT OFF" TYPE.
3. ALL UNDERGROUND UTILITIES AND LATERALS SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF CURBS, CROSS GUTTERS OR SURFACING OF STREETS.
4. STORM DRAIN PIPE SHALL BE REINFORCED CONCRETE PIPE WITH A MINIMUM D-LOAD OF 1,350. FOR PRIVATE STORM DRAIN PIPES, UP TO 15" PVC MAY BE UTILIZED PROVIDED DEPTH IS LESS THAN 15 FEET AND BACKFILLED WITH 3/4" ROCK PER SDRSD S-4 TYPE "C" AND PIPE MEETS ASTM STANDARD 3034 FOR SDR 35 SOLID WALL PIPE.
5. WHERE AN EXISTING PIPE LINE IS TO BE ABANDONED IT SHALL BE REMOVED WITHIN TWENTY FEET OF BUILDING OR STREET AREAS AND REPLACED WITH PROPERLY COMPACTED SOILS. IN OTHER AREAS THE PIPE WILL BE PLUGGED WITH CONCRETE OR REMOVED AS APPROVED BY THE CITY ENGINEER.
6. WHEELCHAIR RAMPS SHALL BE INSTALLED PER REQUIREMENTS OF TITLE 24, CALIFORNIA ADMINISTRATIVE CODE.
7. STREET TREES SHALL BE INSTALLED PER SECTION IV D.3 OF THE CITY OF CARLSBAD LANDSCAPE MANUAL.
8. FIRE HYDRANT MARKERS SHALL BE PLACED IN THE STREET WITHIN THE LIMITS OF WORK OF THIS PLAN PER SDRS DWG M19.
9. ALL SURVEY MONUMENTS AND POINTS THAT ARE DISTURBED BY THIS WORK SHALL BE REESTABLISHED, PERPETUATED, AND DOCUMENTED PER THE PROFESSIONAL LAND SURVEYORS ACT.
10. TWO (2) SETS OF SURVEY (CUT) SHEETS SHALL BE PROVIDED TO THE CITY ENGINEERING INSPECTOR.

SEWER NOTES

1. SEWER MAIN AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "CITY OF CARLSBAD ENGINEERING STANDARDS (LATEST EDITION), VOLUME 1- GENERAL DESIGN STANDARDS, CHAPTER 6-DESIGN CRITERIA FOR GRAVITY SEWER LINES AND APPURTENANCES, AND VOLUME 3 - STANDARD DRAWINGS AND NOTES AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION (GREEN BOOK).
2. THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE DIVISION OF INDUSTRIAL SAFETY BEFORE ANY EXCAVATION AND SHALL ADHERE TO ALL PROVISIONS OF THE STATE CONSTRUCTION SAFETY ORDERS.
3. BEFORE ANY CONNECTION TO THE DISTRICT'S EXISTING SYSTEM, A PERMIT SHALL BE OBTAINED FROM THE DISTRICT. IT MUST BE SIGNED AND APPROVED BY THE DISTRICT'S ENGINEER AND SUPERINTENDENT.
4. BEFORE CONSTRUCTION BEGINS IN ANY PUBLIC RIGHT OF WAY, A CITY RIGHT OF WAY PERMIT SHALL BE REQUIRED.
5. THE CONTRACTOR SHALL NOTIFY THE CITY OF CARLSBAD ENGINEERING INSPECTION 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION. (TELEPHONE NO. [760] 438-3891)

WATER NOTES

1. WATER & RECYCLED WATER MAIN AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "CITY OF CARLSBAD ENGINEERING STANDARDS" (LATEST EDITION) VOLUMES 2 & 3.
2. THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE DIVISION OF INDUSTRIAL SAFETY BEFORE ANY EXCAVATION AND SHALL PROVIDE PROOF OF OSHA NOTIFICATION AND SHALL ADHERE TO ALL PROVISIONS OF THE STATE CONSTRUCTION SAFETY ORDERS.
3. BEFORE ANY CONNECTION OR SHUT DOWN OF VALVES ON EXISTING C.M.W.D. LINES, A PERMIT SHALL BE OBTAINED FROM THE C.M.W.D. OFFICE AND MUST BE SIGNED AND APPROVED BY THE CITY OF CARLSBAD'S DEPUTY CITY ENGINEER AND THE UTILITY OPERATIONS' PUBLIC WORKS MANAGER.
4. A PRECONSTRUCTION CONFERENCE MEETING SHALL BE HELD A MINIMUM OF 7 DAYS BEFORE CONSTRUCTION BEGINS. THE CONTRACTOR SHALL NOTIFY THE CITY OF CARLSBAD ENGINEERING INSPECTION 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION, TELEPHONE NO.(760) 438-3891 FOR SCHEDULING.
5. THE CONTRACTOR SHALL NOTIFY THE CITY OF CARLSBAD ENGINEERING INSPECTION DEPARTMENT 48 HOURS PRIOR TO STARTING WORK SO THAT INSPECTION MAY BE PROVIDED - TELEPHONE NO. (760)438-3891.
6. NO TREES OR STRUCTURES SHALL BE ALLOWED IN THE WATER LINE EASEMENT, ALL EXISTING TREES AND STRUCTURES SHALL BE REMOVED PRIOR TO COMMENCEMENT OF WORK - ANY EXCEPTIONS SHALL REQUIRE WRITTEN PERMISSION FROM THE DISTRICT ENGINEER.
7. ALL BURIED COPPER PIPING AND APPURTENANCES SHALL BE PROTECTED BY MEANS OF CATHODIC PROTECTION. IF DEVELOPER/OWNER CONDUCTS A SOILS TEST REPORT AND DEMONSTRATES THAT PROTECTION CAN BE PERFORMED IN ANOTHER MANNER, THE DISTRICT ENGINEER WILL CONSIDER AN ALTERNATIVE FORM OF PROTECTION.
8. THE EXACT HORIZONTAL AND VERTICAL ALIGNMENT AND TYPE OF MATERIALS OF THE FIRE LINE LOCATED BETWEEN THE DETECTOR CHECK VALVE AND BUILDING SHALL BE DETERMINED BY THE CITY OF CARLSBAD FIRE MARSHAL.
9. ALL POTABLE WATER AND RECYCLED WATER SERVICES SHALL BE 1" AND ALL METERS SHALL BE 5/8" (UNLESS OTHERWISE NOTED ON PLANS).
10. ALL WATER METER BOXES SHALL BE 17" X 30" X 12" POLYMER CONCRETE AS MANUFACTURED BY ARMORCAST OR EQUAL.
11. MINIMUM SPACING BETWEEN POTABLE WATER LATERALS AND SEWER SERVICES SHALL BE 10 FEET.
12. THE TOP OF WATER METER BOXES SHALL BE FLUSH WITH THE FINISHED SURFACE GRADE.
13. CONSTRUCTION OF WATER MAINS AND RECYCLED WATER MAINS SHALL ADHERE TO THE CRITERIA FOR THE SEPARATION OF WATER MAINS AND SANITARY SEWERS PUBLISHED BY THE STATE OF CALIFORNIA'S DEPARTMENT OF HEALTH SERVICES.
14. AXIAL DEFLECTION AT THE PIPE JOINTS ARE NOT ALLOWED. THE USE OF A HIGH-DEFLECTION COUPLING AT A PIPE JOINT MAY BE PERMITTED BY THE INSPECTOR ON A CASE BY CASE BASIS NOT TO EXCEED 4 DEGREES TOTAL DEFLECTION PER COUPLING (2 DEGREES/EACH GASKET). USE CERTAINTED "WNYL-IRON" H.D. FOR C900.

"DECLARATION OF RESPONSIBLE CHARGE"

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

FIRM: _____
ADDRESS: _____
CITY, ST.: _____
TELEPHONE: _____
BY: _____ DATE: _____
(NAME OF ENGINEER)
R.C.E. NO.: _____
REGISTRATION EXPIRATION DATE: _____

SIGNING AND STRIPING NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL SIGNING AND STRIPING.
2. SIGNING, STRIPING AND PAVEMENT MARKINGS SHALL CONFORM TO THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FHWA'S MUTCD 2003 REVISION), AS AMENDED FOR USE IN CALIFORNIA), CALTRANS STANDARD SPECIFICATIONS (JULY 2006 OR LATEST VERSION THEREOF), THESE PLANS AND THE SPECIAL PROVISIONS.
3. ALL SIGNING AND STRIPING IS SUBJECT TO THE APPROVAL OF THE PUBLIC WORKS DIRECTOR OR HIS REPRESENTATIVE, PRIOR TO INSTALLATION.
4. ANY DEVIATION FROM THESE SIGNING AND STRIPING PLANS SHALL BE APPROVED BY THE ENGINEER OF WORK AND PUBLIC WORKS DIRECTOR PRIOR TO ANY CHANGE IN THE FIELD.
5. ALL SIGNING AND STRIPING SHALL BE REFLECTIVE PER CALTRANS SPECIFICATIONS. STRIPING SHALL BE REPAINTED TWO WEEKS AFTER INITIAL PAINTING. SIGNING SHALL USE ENCAPSULATED LENS REFLECTIVE SHEETING (HIGH INTENSITY OR EQUAL).
6. PRIOR TO FINAL ACCEPTANCE OF STREET IMPROVEMENTS, ALL STREET STRIPING AND AND MARKINGS WITHIN A 500' PERIMETER OF THE CONSTRUCTION PROJECT WILL BE RESTORED TO A "LIKE NEW" CONDITION, IN A MANNER MEETING THE APPROVAL OF THE CITY INSPECTOR.
7. EXACT LOCATION OF STRIPING AND STOP LIMIT LINES SHALL BE APPROVED BY THE PUBLIC WORKS DIRECTOR OR HIS REPRESENTATIVE PRIOR TO INSTALLATION.
8. CONTRACTOR SHALL REMOVE ALL CONFLICTING PAINTED LINES, MARKINGS AND PAVEMENT LEGENDS BY GRINDING. DEBRIS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
9. ALL PAVEMENT LEGENDS SHALL BE THE LATEST VERSION OF THE CALTRANS METRIC STENCILS.
10. LIMIT LINES AND CROSSWALKS SHALL BE FIELD LOCATED. CROSSWALKS SHALL HAVE 10' INSIDE DIMENSION UNLESS OTHERWISE SPECIFIED.
11. ALL CROSSWALKS, LIMIT LINES, STOP BARS, PAVEMENT ARROWS AND PAVEMENT LEGENDS SHALL BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED.
12. FIRE HYDRANT PAVEMENT MARKERS SHALL CONFORM TO THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FHWA'S MUTCD 2003 REVISION), AS AMENDED FOR USE IN CALIFORNIA) AND SAN DIEGO REGIONAL STANDARD DRAWING M-19.
13. ALL MEDIAN NOSES AND FLARES SHALL BE PAINTED YELLOW.
14. ALL SIGNS SHALL BE STANDARD SIZE AS SHOWN IN THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FHWA'S MUTCD 2003 REVISION), AS AMENDED FOR USE IN CALIFORNIA) UNLESS OTHERWISE SPECIFIED.
15. SIGN POSTS SHALL BE SQUARE PERFORATED STEEL TUBING WITH BREAKAWAY BASE PER SAN DIEGO REGIONAL STANDARD DRAWING M-45.
16. WHEN A SIGN IS ATTACHED TO A POLE, IT SHALL BE MOUNTED USING A STANDARD CITY OF CARLSBAD MOUNTING BRACKET WITH STRAPS.
17. EXISTING SIGNS REMOVED BY THE CONTRACTOR SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY OF CARLSBAD PUBLIC WORKS YARD AT 405 OAK AVENUE.
18. ALL SIGNS SHOWN ON THESE PLANS SHALL BE NEW SIGNS PROVIDED AND INSTALLED BY THE CONTRACTOR EXCEPT THOSE SIGNS SPECIFICALLY SHOWN AS EXISTING TO BE RELOCATED OR TO REMAIN.
19. (IF NECESSARY) WHERE R4-7 SIGN AND OM1-3 OBJECT MARKER ARE TO BE INSTALLED IN A 2-FOOT WIDE MEDIAN NOSE, THE R4-7 SIGN SHALL BE 18"x24" AND THE OM1-3 OBJECT MARKER SHALL BE 12"x12"

INDEX OF SHEETS

REFERENCE DRAWINGS

BASIS OF BEARINGS

SOURCE OF TOPOGRAPHY

TOPOGRAPHY SHOWN ON THESE PLANS WAS GENERATED BY _____
METHODS FROM INFORMATION GATHERED ON _____
20 _____ BY _____
TOPOGRAPHY SHOWN HEREON CONFORMS TO NATIONAL MAP
ACCURACY STANDARDS.

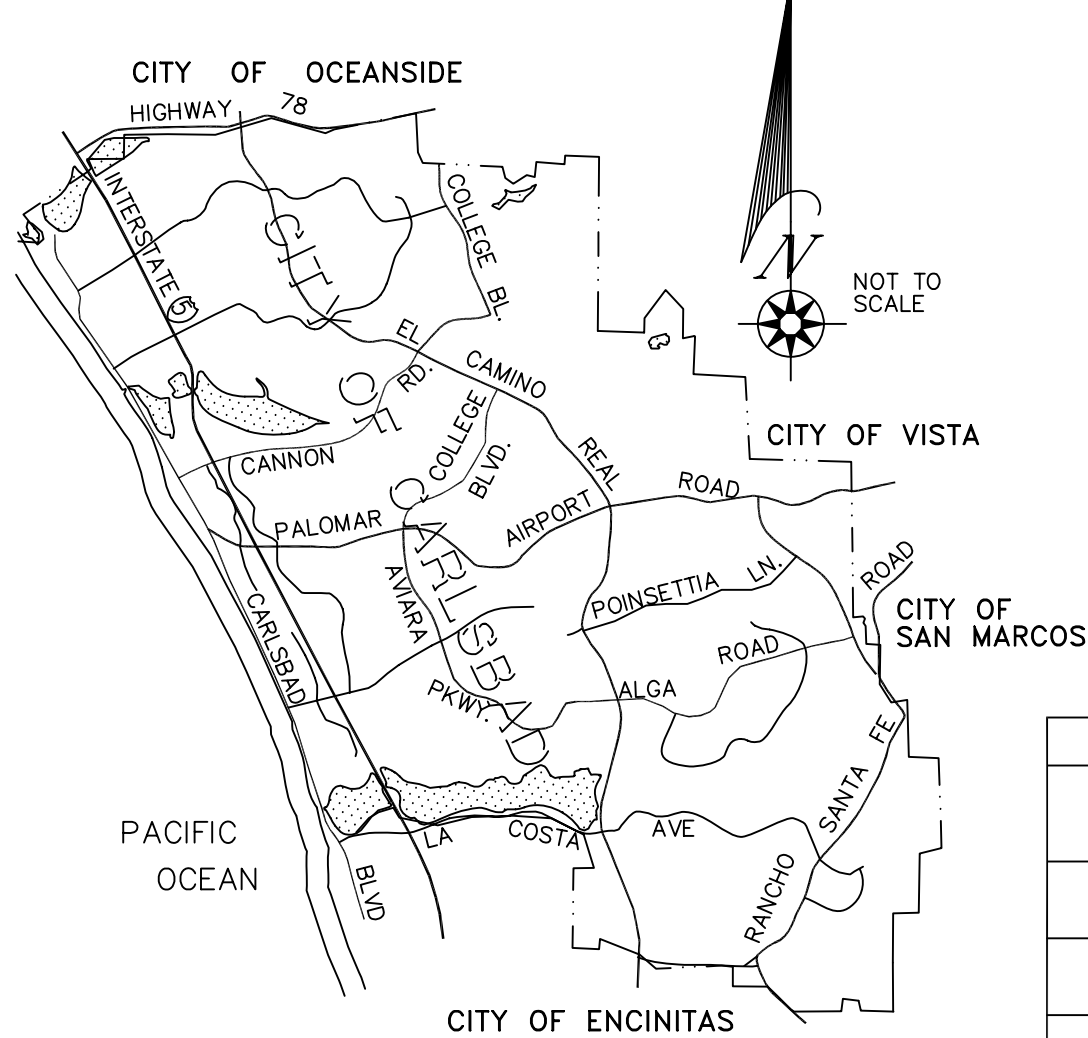
PROJECT LOCATION

THIS PROJECT IS LOCATED WITHIN ASSESSORS PARCEL NUMBER(S) _____
THE CALIFORNIA COORDINATE INDEX OF THIS PROJECT IS _____
N _____ E _____

BENCH MARK

DESCRIPTION: _____
LOCATION: _____
RECORDED: _____
ELEVATION: _____ DATUM: _____

VICINITY MAP



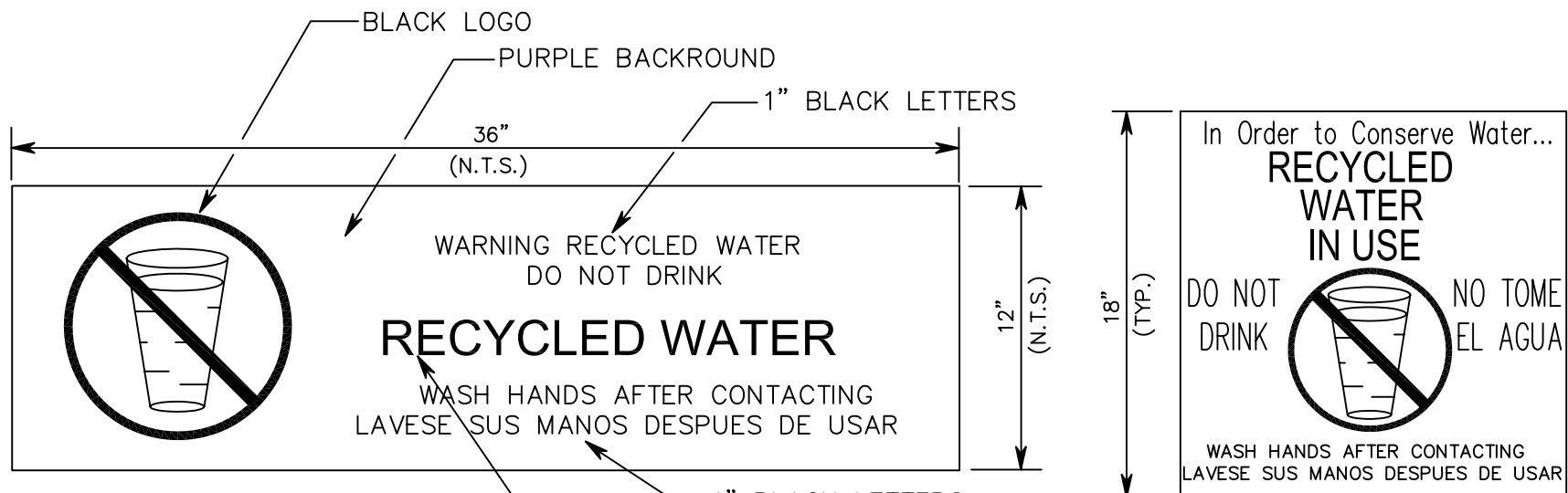
GENERAL NOTES
RECYCLED WATER NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CARLSBAD MUNICIPAL WATER DISTRICT'S RULES AND REGULATIONS.
- DRINKING WATER FOUNTAINS AND DESIGNATED OUTDOOR EATING AREAS SHALL BE PROTECTED AGAINST CONTACT WITH RECYCLED WATER SPRAY, MIST OR MISTING.
- BEST MANAGEMENT PRACTICES SHALL BE USED TO ELIMINATE OR CONTROL TO THE BEST EXTENT POSSIBLE PONDING, RUN-OFF, OVER-SPRAY, AND MISTING.
- HOSE BIBS ARE STRICTLY PROHIBITED.
- CROSS-CONNECTIONS BETWEEN RECYCLED WATER LINES AND POTABLE WATER LINES ARE STRICTLY PROHIBITED.
- NO SUBSTITUTION OF PIPE MATERIALS WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE CITY OF CARLSBAD MUNICIPAL WATER DISTRICT.
- ALL MAINLINE PIPES SHALL HAVE WARNING TAPE PER CARLSBAD MUNICIPAL WATER DISTRICT'S RULES AND REGULATIONS.
- HOURS FOR IRRIGATION WITH RECYCLED WATER ARE FROM 9:00 P.M. TO 6:00 A.M. THE HOURS FOR IRRIGATION WITH DISINFECTED TERTIARY RECYCLED WATER MAY BE MODIFIED BY THE LOCAL AUTHORITY. IRRIGATION DURING PUBLIC USE PERIODS WITH DISINFECTED TERTIARY RECYCLED WATER SHALL BE UNDER THE SUPERVISION OF THE DESIGNATED USER SUPERVISOR. IRRIGATION WITH WATER OF A LESSER QUALITY THAN DISINFECTED TERTIARY RECYCLED WATER SHALL BE BETWEEN THE HOURS OF 9:00 P.M. TO 6:00 A.M.
- BURIAL OF ALL WIRING AND PIPING SHALL MEET CARLSBAD MUNICIPAL WATER DISTRICT'S RULES AND REGULATIONS.
- NON-DESIGNATED USE AREAS SHALL BE PROTECTED FROM CONTACT WITH RECYCLED WATER, WHETHER BY WIND BLOWN SPRAY OR BY DIRECT APPLICATION THROUGH IRRIGATION OR OTHER USE. LACK OF PROTECTION, WHETHER BY DESIGN, CONSTRUCTION PRACTICE OR SYSTEM OPERATION IS STRICTLY PROHIBITED.
- IRRIGATION HEADS SHALL BE RELOCATED OR ADJUSTED TO MINIMIZE OR ELIMINATE OVER-SPRAYING ON SIDEWALKS, STREETS AND NON-DESIGNATED USE AREAS.
- RECYCLED WATER QUICK COUPLING VALVES SHALL BE OF A TYPE DESIGNED FOR THE USE ON RECYCLED WATER DISTRIBUTION SYSTEMS PER CARLSBAD MUNICIPAL WATER DISTRICT'S RULES AND REGULATIONS.
- ON RECYCLED WATER SYSTEMS, ALL APPURTENANCES (SPRINKLER HEADS, VALVE BOXES, ETC.) SHALL BE COLOR-CODED PURPLE PER AWWA GUIDELINES AND SECTION 116815 OF THE CALIFORNIA HEALTH AND SAFETY CODE.
- ALL IRRIGATION PIPE SHALL BE STENCILED WITH WARNING, "NON-POTABLE OR RECYCLED WATER" COLOR-CODED (PURPLE) AND LAID WITH WARNING TAPE AND STENCILING ORIENTED TOWARD THE TOP OF THE TRENCH PER THE CARLSBAD MUNICIPAL WATER DISTRICT'S RULES AND REGULATIONS.
- ON NEW ON-SITE SYSTEMS (POST-METER), POTABLE WATER, CONSTANT PRESSURE RECYCLED WATER AND SEWER LINES SHOULD BE PLACED A MINIMUM OF FOUR FEET APART OR AS DIRECTED BY THE PROJECT ENGINEER AND/OR REGULATORY AGENCY. MEASUREMENTS SHALL BE BETWEEN FACING SURFACES, NOT PIPE CENTERLINES.
- CONSTANT PRESSURE RECYCLED WATER LINES SHALL CROSS AT LEAST TWELVE INCHES BELOW POTABLE WATER LINES AND MAINTAIN AT LEAST TWELVE INCHES CROSSING SEPARATION BETWEEN OTHER UTILITIES.
- IF A CONSTANT PRESSURE RECYCLED WATER LINE MUST BE INSTALLED ABOVE A POTABLE WATER LINE OR LESS THAN TWELVE INCHES BELOW A POTABLE WATER LINE, THEN THE RECYCLED WATER LINE SHALL BE INSTALLED WITHIN AN APPROVED PROTECTIVE SLEEVE AS PER THE CARLSBAD MUNICIPAL WATER DISTRICT'S RULES AND REGULATIONS.
- THE REQUIRED CROSS-CONNECTION SHUTDOWN TEST SHALL BE DONE BY THE CARLSBAD MUNICIPAL WATER DISTRICT AND THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.
- THE REQUIRED CROSS-CONNECTION INSPECTION SHALL BE DONE BY EITHER THE CARLSBAD MUNICIPAL WATER DISTRICT AND/OR THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH. COPIES OF INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTING PARTY.
- THE DESIGN AND LOCATIONS PROPOSED FOR RECYCLED WATER "DO NOT DRINK" SIGN SHALL BE CALLED OUT ON THE PLANS.
- WHEN RECYCLED WATER BECOMES AVAILABLE, AN ON-SITE USER SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH PLUMBING SYSTEM WITHIN THE PROPERTY, WITH THE BASIC CONCEPTS OF BACKFLOW/CROSS-CONNECTION PROTECTION, THE RECYCLED PUREYOR'S RULES AND REGULATIONS AND THE SPECIFIC REQUIREMENTS OF A RECYCLED WATER SYSTEM. COPIES OF THE DESIGNATION, WITH CONTACT PHONE NUMBERS SHALL BE PROVIDED TO THE CARLSBAD MUNICIPAL WATER DISTRICT.

IN CASE OF EMERGENCY CONTACT AT

OR AFTER HOURS CONTACT AT

- ALL PUBLIC AND PRIVATE POTABLE WATER MAINS INCLUDING FIRE MAINS AND ANY WATER WELLS AND WATER COURSES WITHIN THE RECYCLED WATER PROJECT SHALL BE SHOWN ON THE PLANS.
- CALL OUT ON THE PLANS IF THERE ARE OR ARE NOT DRINKING FOUNTAINS AND/OR DESIGNATED OUTDOOR EATING AREAS ON THE SITE.
- A PHYSICAL SEPARATION SHALL BE PROVIDED BETWEEN ADJACENT AREAS IRRIGATED WITH RECYCLED WATER AND POTABLE WATER. SEPARATION SHALL BE PROVIDED BY DISTANCE, CONCRETE MOW STRIPS OR OTHER APPROVED METHODS.
- ALL IRRIGATION BACKFLOW PREVENTERS SHALL BE TESTED BY A CERTIFIED TESTER AND RESULTS MUST BE GIVEN TO THE CITY AND THE CARLSBAD MUNICIPAL WATER DISTRICT. PIPE BETWEEN THE METER AND BACKFLOW PREVENTER SHALL BE "SCHEDULE K HARD COPPER". APPROVED CONTRACT BACKFLOW TESTERS CAN BE FOUND ON THE CITY WEB SITE AT WWW.CI.CARLSBAD.CA.US/POFDOC.HTML?PID=340.



TYPICAL SIGNS

SIGNAGE NOTES

THE FOLLOWING GUIDELINES FOR THE USE OF RECYCLED WATER ARE TO BE PERMANENTLY POSTED INSIDE THE DOOR OF EACH CONTROLLER WHERE THEY ARE EASILY VISIBLE. PLACE ON 8-1/2" X 11" SIZED SIGN.

COLOR: PURPLE BACKGROUND WITH BLACK LETTERING.

1. GUIDELINES FOR RECYCLED WATER USE.

- IRRIGATE BETWEEN THE HOURS OF 10:00 P.M. AND 6:00 A.M. ONLY. WATERING OUTSIDE THIS TIME FRAME MUST BE DONE MANUALLY WITH QUALIFIED SUPERVISORY PERSONNEL ON-SITE. NO SYSTEM SHALL AT ANY TIME BE LEFT UNATTENDED DURING USE OUTSIDE THE NORMAL SCHEDULE.
- IRRIGATE IN A MANNER THAT WILL MINIMIZE RUN-OFF, POOLING, AND PONDING. THE APPLICATION RATE SHALL NOT EXCEED THE INFILTRATION RATE OF THE SOIL. TIMERS MUST BE ADJUSTED SO AS TO BE COMPATIBLE WITH THE LOWEST SOIL INFILTRATION RATE PRESENT. THIS PROCEDURE MAY BE FACILITATED BY THE EFFICIENT SCHEDULING OF THE AUTOMATIC CONTROL CLOCKS, (I.E., EMPLOYING THE REPEAT FUNCTION TO BREAK UP THE TOTAL IRRIGATION TIME INTO CYCLES THAT WILL PROMOTE MAXIMUM SOIL ABSORPTION).
- ADJUST SPRAY HEADS TO ELIMINATE OVERSPRAY ONTO AREAS NOT UNDER THE CONTROL OF THE CUSTOMER. FOR EXAMPLE, POOL DECKS, PRIVATE PATIOS AND LOTS, AND STREETS AND SIDEWALKS.
- MONITOR AND MAINTAIN THE SYSTEM TO MINIMIZE EQUIPMENT AND MATERIAL FAILURE. BROKEN SPRINKLER HEADS, LEAKS, UNRELIABLE VALVES, ETC., SHOULD BE REPAIRED AS SOON AS THEY BECOME APPARENT.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR EDUCATING EACH EMPLOYEE AND ALL MAINTENANCE PERSONNEL ON A CONTINUOUS BASIS, REGARDING THE PRESENCE OF RECYCLED WATER. MAINTENANCE PERSONNEL MUST BE INFORMED THAT WATER IS FOR IRRIGATION PURPOSES ONLY AND IS NOT APPROVED FOR DRINKING OR FOR HAND AND TOOL WASHING, ETC.
- OBTAIN PRIOR APPROVAL OF ALL PROPOSED CHANGES AND MODIFICATIONS TO ANY PRIVATE ON-SITE FACILITIES. SUCH CHANGES MUST BE SUBMITTED TO, AND APPROVED BY, THE DISTRICT ENGINEERING OFFICE AND DESIGNED IN ACCORDANCE WITH DISTRICT STANDARDS.
 - ALL RECYCLED WATER SPRINKLER CONTROL VALVES SHALL BE TAGGED WITH IDENTIFICATION TAGS.
 - TAGS SHALL BE WEATHERPROOF PLASTIC, 3"x 4", PURPLE IN COLOR, WITH THE WORDS "WARNING RECYCLED WATER - DO NOT DRINK" IMPRINTED ON ONE SIDE, AND "AVISO - AGUA IMPURA - NO TOMAR" IMPRINTED ON THE OTHER SIDE. IMPRINTING SHALL BE PERMANENT AND BLACK IN COLOR. USE TAGS AS MANUFACTURED BY T. CHRISTY ENTERPRISES OR APPROVED EQUAL.
 - ONE TAG SHALL BE ATTACHED TO EACH VALVE AS FOLLOWS:
 - ATTACH TO VALVE STEM DIRECTLY OR WITH PLASTIC TIE-WRAP OR
 - ATTACH TO SOLENOID WIRE DIRECTLY OR WITH PLASTIC TIE-WRAP OR
 - ATTACH TO VALVE COVER WITH EXISTING VALVE COVER BOLT.
 - ALL SPRINKLER HEADS SHALL BE IDENTIFIED AS RECYCLED WATER SPRINKLER HEADS.
- EACH AUTOMATIC CONTROLLER AND ITS ASSOCIATED EQUIPMENT SHALL BE IDENTIFIED WITH A SIGN BEARING THE WORDS "RECYCLED WATER USED FOR IRRIGATION" IN ENGLISH AND SPANISH, WITH BLACK LETTERS 1" HIGH ON A PURPLE BACKGROUND. THE SIGN SHALL BE PLACED SO THAT IT CAN BE READILY SEEN BY ANY OPERATIONS PERSONNEL UTILIZING THE EQUIPMENT.

DECLARATION OF RESPONSIBLE CHARGE:

I HEREBY DECLARE THAT I AM _____ OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF CARLSBAD AND SAN DIEGO COUNTY DEPARTMENT OF HEALTH SERVICES IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS _____ OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

FIRM NAME & ADDRESS:

PHONE NO: (____) _____

REGISTRATION NO: _____ EXPIRATION DATE: _____



UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

ARCHITECT/ ENGINEERS STAMP SEAL Expiration Date: _____	CARLSBAD MUNICIPAL WATER DISTRICT	DEVELOPERS NAME: ADDRESS: _____ TELEPHONE: _____
	WILLIAM E. PLUMMER DEPUTY CITY ENGINEER R.C.E.28176 DATE EXP.3/31/10	DATE PLAN PREPARED: _____ BY: _____

PROJECT MAP

SHOW ON MAP:

STREETS & STREET NAMES, SHEET & SHEET NUMBERS, DWELLING UNITS, DRINKING FOUNTAINS, LIMIT LINE OF RECYCLED WATER USE, MAIN LINE GATE VALVES, METERS, LAKES & RECREATIONAL AREAS, OPEN SPACE AREAS, NORTH ARROW, SCALE OF MAP, BOUNDARY LIMITS, MATCH LINES, SCALE, ASSESSORS PARCEL NUMBER, INDEX OF SHEETS, RESERVOIRS, SHOW POINTS OF CONNECTION AND LOCATION OF "DO NOT DRINK" SIGNS.

REGARDING THE FOLLOWING SHEETS:

THE NEXT ONE OR MORE SHEETS SHOULD BE THE IRRIGATION & LANDSCAPE NOTES, SYMBOLS, LEGENDS, ETC. AFTER THESE SHEETS WILL BE YOUR ACTUAL CONSTRUCTION (IRRIGATION) PLANS. LAST SHEET/S WILL BE YOUR DETAIL SHEETS.

KEEP IN MIND THE OBJECTIVE IS TO HAVE A PLAN THAT IS UNDERSTANDABLE TO OPERATION AND MAINTENANCE PEOPLE. THE INDEX-KEY MAP SHOULD ENABLE A PERSON TO EASILY LOCATE THE CONTROL VALVES AND QUICKLY GAIN AN UNDERSTANDING OF THE ENTIRE RECYCLED SYSTEM AND IT'S LIMITS.

IMPROVEMENT PLANS INCLUDE:

A DESCRIPTION & LOCATION OF WATER SERVICES INCLUDING TYPE (DOMESTIC OR RECYCLED), DESIGN P.S.I. AND INSTALLATION REQUIREMENTS, MINIMUM VERTICAL DEPTH, HORIZONTAL SEPARATION, IDENTIFICATION, AND CROSS CONNECTION CONTROL. LOCATE ALL PUBLIC FACILITIES INCLUDING DRINKING FOUNTAINS, FOOD SERVICE AND PICNIC AREAS, SWIMMING POOLS, SIDEWALK AREAS, EATING TABLES AND AREAS, WALLS, TOPOGRAPHY OF SITE, DIRECTION OF DRAINAGE, LOCATION OF WELLS, STREAMS, LIMIT LINE OF 100 YEAR FLOOD PLAIN, EXISTING/PROPOSED SEWER, EXISTING & PROPOSED RECYCLED AND POTABLE WATER SYSTEMS.

LEGEND

- Ⓜ POTABLE WATER METER
- Ⓡ RECYCLED WATER METER
- ⌘ BACKFLOW PREVENTION DEVICE INSTALL PER CMWD
- W— POTABLE WATER LINE
- RW— RECYCLED WATER LINE
- RC— RECYCLED WATER PRESSURE SUPPLY LINE
- FS— FIRE SERVICE LINE
- ▨ RECYCLED WATER USE AREA
- △ DO NOT DRINK SIGN
- OUTDOOR EATING AREA (PROTECTED AGAINST CONTACT WITH RECYCLED WATER)

INSPECTION PROCEDURES

1. CITY CONSTRUCTION INSPECTION SHALL INCLUDE:

- LOCATION OF PIPE LINES.
- TRENCH DEPTH.
- REQUIRED SEPARATION (HORIZONTALLY AND VERTICALLY).
- PIPE IDENTIFICATION.
- POINTS-OF-CONNECTION (POC'S).
- LOCATION AND IDENTIFICATION OF SPRINKLER HEADS.
- WARNING SIGNS AT THE SITE AND ON THE TRUCKS HAULING RECYCLED WATER (IF RECYCLED WATER IS USED FOR CONSTRUCTION).

AN APPROVAL LETTER REGARDING THE INSPECTION OF THE PROJECT SHALL BE OBTAINED FROM THE CITY AND THE DISTRICT, AND BE FORWARDED TO THE COUNTY HEALTH DEPARTMENT PRIOR TO FINAL INSPECTION APPROVAL.

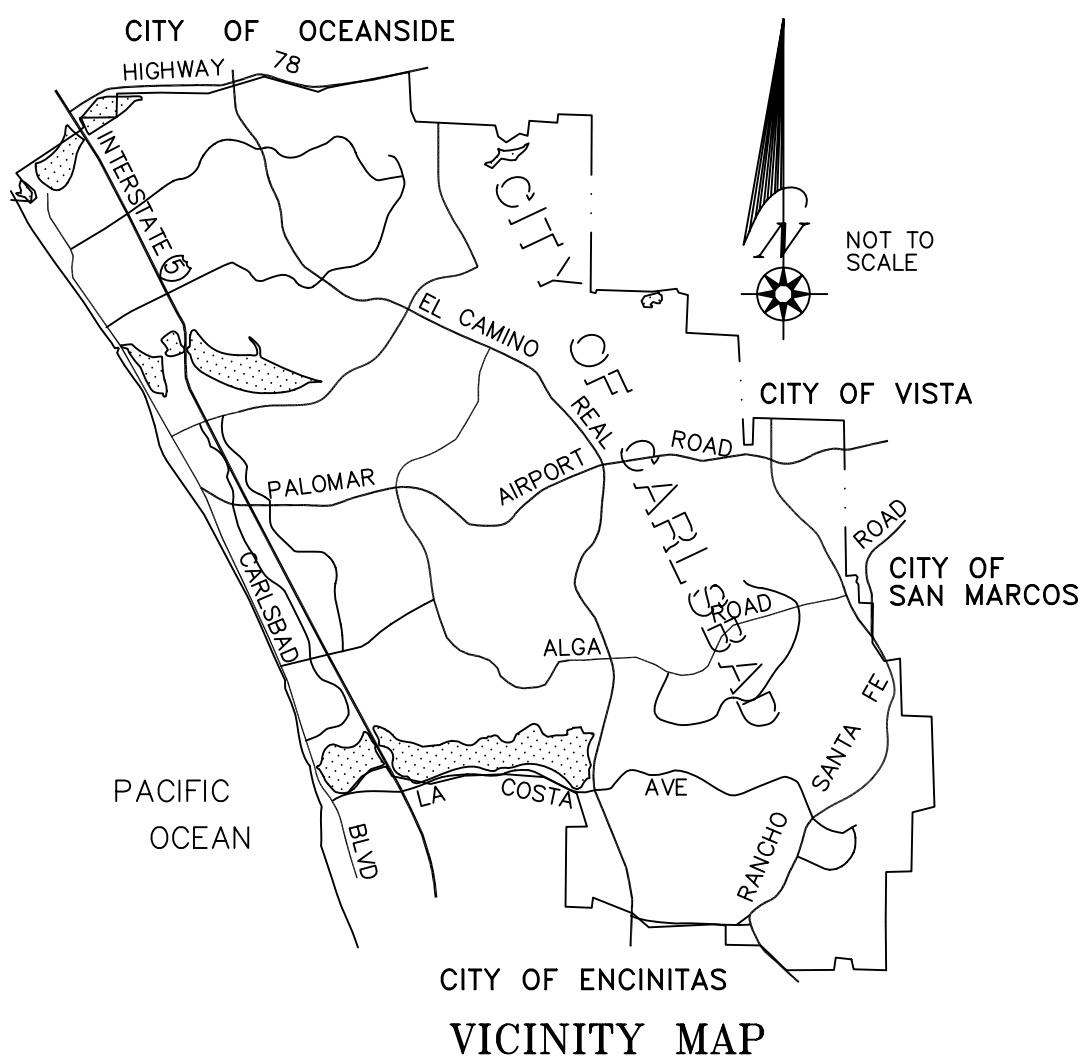
2. DISTRICT FINAL INSPECTION SHALL INCLUDE:

- COVERAGE TEST, AFTER COMPLETION OF THE SPRINKLER SYSTEM, TO DETERMINE THE ADEQUACY OF COVERAGE ON THE APPROVED USE AREA AND PROTECTION OF AREAS NOT APPROVED FOR RECEIVING RECYCLED WATER.
- WARNING SIGNS AND LABELS.
- QUICK COUPLING VALVES.
- ALL ASPECTS OF THE IRRIGATION CONDITIONS INCLUDING WINDBLOWN SPRAY, RUNOFF, AND PONDING.
- REQUIRED PROTECTION OF ALL RESIDENTIAL AREAS.
- REQUIRED PROTECTION OF WELL, STREAMS, RESERVOIRS, ETC.
- CROSS-CONNECTION.

3. ANNUAL INSPECTION SHALL INCLUDE:

A COMPLETE INSPECTION WHICH SHOULD COVER PART A, PART B AND PART G OF THE DISTRICT FINAL INSPECTION.

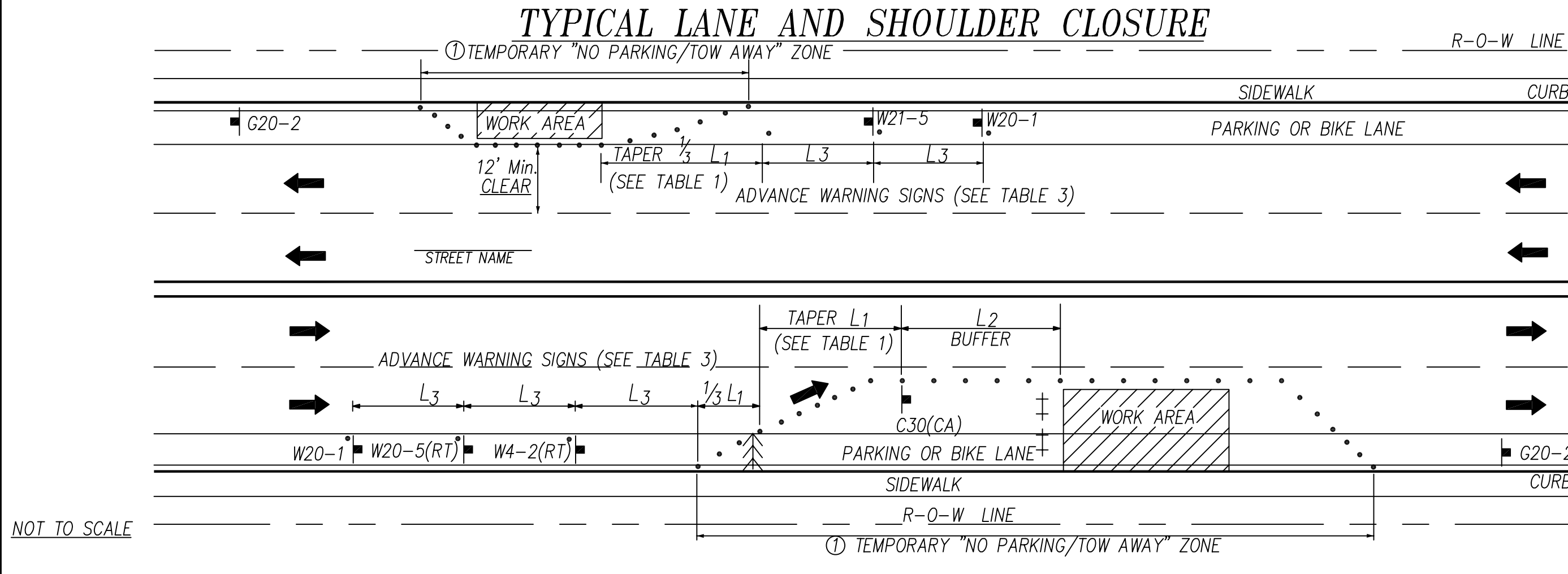
REVISIONS MUST BE APPROVED BY PUBLIC HEALTH ENGINEER, CITY ENGINEER & DISTRICT ENGINEER PRIOR TO IMPLEMENTATION IN FIELD.



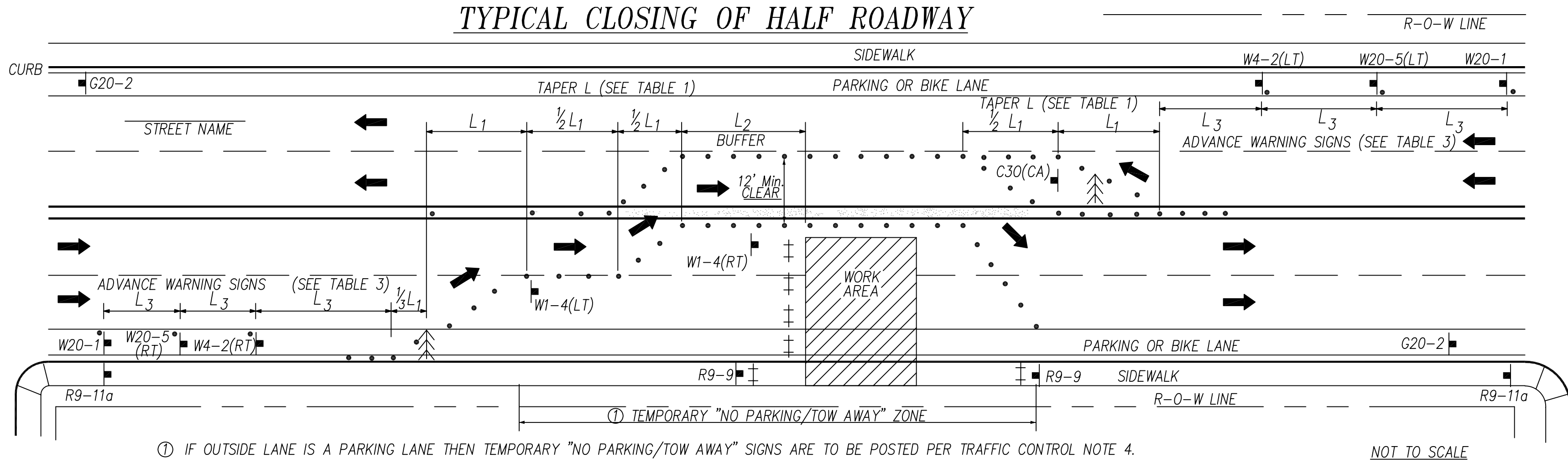
DATE	INITIAL	REVISION DESCRIPTION	DATE	INITIAL	DATE	INITIAL
ENGINEER OF WORK			OTHER APPROVAL		CITY APPROVAL	

COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH LAND AND WATER QUALITY DIVISION		
GLENN LEEKS ENVIRONMENTAL HEALTH SPECIALIST	DATE _____	
APPROVED		
ENGINEERING PLANCHECKER	DATE _____	
"AS BUILT"		
TITLE	DATE _____	
REVIEWED BY:		
INSPECTOR	DATE _____	
CARLSBAD MUNICIPAL WATER DISTRICT		
SHEET	CITY OF CARLSBAD PLANNING DEPARTMENT	SHEETS
PRIVATE (ONSITE) RECYCLED WATER SYSTEM FOR:		
APPROVED		
ASSISTANT PLANNING DIRECTOR DATE _____		
DRWN BY:	PROJECT NO.	DRAWING NO.
CHKD BY:		

RW XXXXX

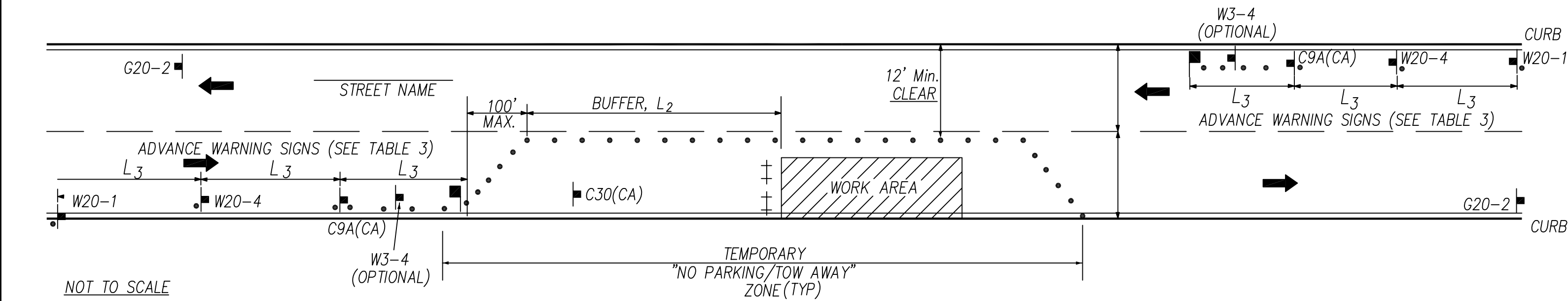


① IF OUTSIDE LANE IS A PARKING LANE THEN TEMPORARY "NO PARKING/TOW AWAY" SIGNS ARE TO BE POSTED PER TRAFFIC CONTROL NOTE 4.

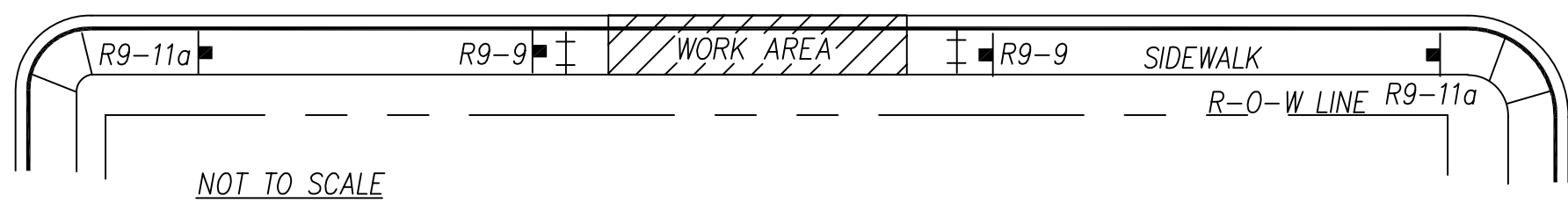


① IF OUTSIDE LANE IS A PARKING LANE THEN TEMPORARY "NO PARKING/TOW AWAY" SIGNS ARE TO BE POSTED PER TRAFFIC CONTROL NOTE 4.

TYPICAL LANE CLOSURE ON TWO-LANE ROAD USING FLAGGERS



TYPICAL SIDEWALK CLOSURE



TRAFFIC CONTROL NOTES

1. WORK HOURS TO BE RESTRICTED TO _____ TO _____ UNLESS APPROVED OTHERWISE.
2. PEDESTRIAN CONTROLS WILL BE PROVIDED AS SHOWN.
3. PEDESTRIANS SHALL BE PROTECTED FROM ENTERING THE EXCAVATION BY PHYSICAL BARRIERS DESIGNED, INSTALLED, AND MAINTAINED TO THE SATISFACTION OF THE CITY ENGINEER.
4. TEMPORARY "NO PARKING/TOW AWAY" SIGNS STATING THE DATE AND TIME OF PROHIBITION WILL BE POSTED 72 HOURS PRIOR TO COMMENCING WORK. CALL CARLSBAD POLICE DISPATCH AT (760)931-2197 TO VALIDATE POSTING.
5. ACCESS WILL BE MAINTAINED TO ALL DRIVEWAYS UNLESS OTHER ARRANGEMENTS ARE MADE.
6. TRENCHES MUST BE BACKFILLED OR PLATED DURING NON-WORKING HOURS UNLESS K-RAIL BARRIERS ARE PROVIDED. K-RAIL IS APPROVED ONLY WHEN SPECIFICALLY SHOWN ON THE APPROVED TRAFFIC CONTROL PLAN. PLATES SHALL HAVE CLEATS AND COLD MIX AT THE EDGES AS APPROVED BY THE CITY INSPECTOR.
7. EXISTING STRIPING, CROSSWALKS, LEGENDS AND/OR PAVEMENT MARKERS SHALL BE REPLACED BY THE CONTRACTOR WITHIN 24 HOURS, IF REMOVED OR DAMAGED.
8. WORK THAT DISTURBS NORMAL TRAFFIC SIGNAL TIMING OPERATIONS SHALL BE COORDINATED WITH THE CITY OF CARLSBAD. CONTACT STREETS DIVISION AT (760) 434-2937 72 HOURS PRIOR TO COMMENCING WORK.
9. TRAFFIC SIGNALS SHALL REMAIN FULLY ACTUATED AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE. IF TRAFFIC SIGNAL LOOP DETECTORS ARE RENDERED INOPERATIVE BY THE PROPOSED WORK, VIDEO DETECTION SHALL BE USED TO PROVIDE ACTUATION.
10. FLAGGERS SHALL BE EQUIPPED WITH A WHITE HARD HAT, AN ORANGE VEST, AND A "STOP/SLOW" PADDLE ON A 5 FOOT STAFF.
11. ALL TRAFFIC CONTROL DEVICES MUST BE MAINTAINED 24 HOURS A DAY, 7 DAYS PER WEEK, BY THE CONTRACTOR.
12. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FHWA'S MUTCD 2003 REVISION), AS AMENDED FOR USE IN CALIFORNIA).
13. TRAFFIC CONTROL PLAN SUBMITTALS ARE REQUIRED FOR EACH PHASE OF THE WORK IN THE DETAIL, FORMAT, AND QUALITY ILLUSTRATED ON THIS SHEET.
14. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM VIEW OR COVERED WHEN NOT IN USE.
15. THE CITY ENGINEER OR HIS REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO INSURE PUBLIC SAFETY.
16. ALL WORK AFFECTING BUS STOPS SHALL BE COORDINATED WITH NORTH COUNTY TRANSIT DISTRICT. CONTRACTOR SHALL CALL NCTD AT (760) 967-2828 AT LEAST 72 HOURS IN ADVANCE OF STARTING WORK.
17. CHANGEABLE MESSAGE SIGNS SHALL BE USED IN ADVANCE OF TRAFFIC CONTROL ON MAJOR AND PRIME ARTERIALS, UNLESS OTHERWISE APPROVED. THESE SIGNS SHALL BE SHOWN ON THE TRAFFIC CONTROL PLAN.

SIGNAGE NOTES

1. AT LEAST ONE PERSON SHALL BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON ALL NIGHT LANE CLOSURES.
2. ALL WARNING SIGNS FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED OR REFLECTORIZED AS SPECIFIED IN THE SPECIFICATIONS.
3. ALL ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES OF ALL MAJOR AND PRIME ARTERIALS. FLASHING BEACONS SHALL BE USED DURING NIGHT LANE CLOSURES.
4. A G20-2 "END ROAD WORK" SIGN SHALL BE PLACED AT THE END OF THE LANE CLOSURE UNLESS THE END OF THE WORK AREA IS OBVIOUS, OR ENDS WITHIN A LARGER PROJECT LIMITS.
5. ALL CONES USED FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED TRAFFIC CONES OR FITTED WITH 13" REFLECTIVE SLEEVES.
6. FLASHING ARROW SIGNS SHALL BE USED PER THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FHWA'S MUTCD 2003 REVISION), AS AMENDED FOR USE IN CALIFORNIA). SILENT TYPE SHALL BE USED IN RESIDENTIAL AREAS.
7. THE MAXIMUM SPACING BETWEEN CONES IN A TAPER OR A TANGENT SHALL BE APPROXIMATELY AS SHOWN IN TABLE 1.
8. ADDITIONAL ADVANCE FLAGGERS SHALL BE REQUIRED WHEN TRAFFIC QUEUES DEVELOP. FLAGGER STATIONS FOR WORK AT NIGHT SHALL BE ILLUMINATED AS NOTED IN SECTION 6G.20 OF THE MUTCD.
9. PLACE C30 (CA) "LANE CLOSED" SIGN AT 500'-1000' INTERVALS THROUGHOUT EXTENDED WORK AREAS.
10. ALL REQUIRED SIGNS THAT ARE TO BE LEFT IN PLACE OVER A WEEKEND OR HOLIDAY SHALL BE POST MOUNTED USING SQUARE PERFORATED STEEL TUBING WITH BREAKAWAY BASE PER SDRSD M-45.
11. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF SECTION 12 OF THE MOST RECENT EDITION OF THE CALTRANS STANDARD SPECIFICATIONS.

SIGNS

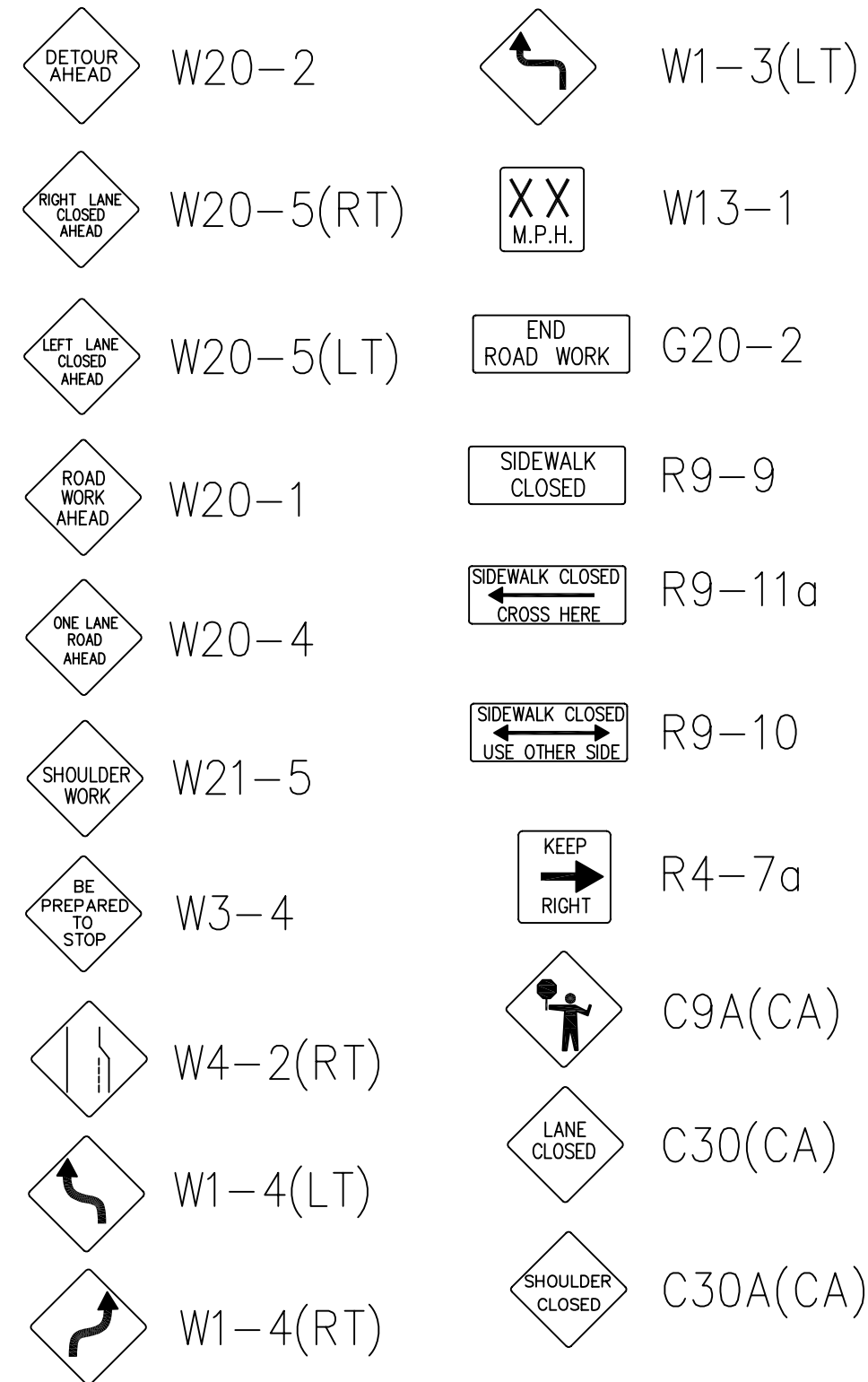


TABLE 3: SIGN SPACING, L₃

APPROACH SPEED (M.P.H.)	MINIMUM DISTANCE IN FEET L ₃	
	BETWEEN SIGNS *	FROM LAST SIGN TO TAPER
LESS THAN 25	100'	100'
25 TO 40	350'	350'
GREATER THAN 40	500'	500'

* EXACT SPACING MAY VARY DUE TO FIELD CONDITIONS

TABLE 1: TAPER LENGTHS, L₁

APPROACH SPEED (M.P.H.)	MINIMUM TAPER LENGTH L ₁ *	MINIMUM NUMBER OF CONES FOR TAPER *	MAXIMUM SPACING OF CONES ALONG TAPER (FEET) ±	MAXIMUM SPACING OF CONES ALONG TANGENT (FEET) ±
25	125	6	25	50
30	180	7	30	60
35	245	8	35	70
40	320	9	40	80
45	540	13	45	90
50	600	13	50	100
55	660	13	55	110
60	720	13	60	120

* BASED ON 12 FOOT WIDE LANE. THIS COLUMN IS ALSO APPROPRIATE FOR LANE WIDTHS LESS THAN 12 FEET.

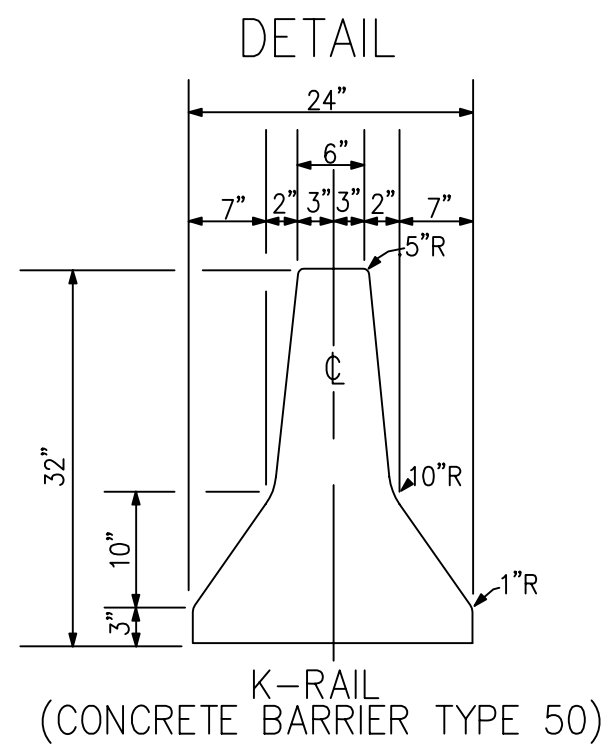
TABLE 2: BUFFER SPACE, L₂

APPROACH SPEED (M.P.H.)	LONGITUDINAL BUFFER SPACE L ₂ (FEET) ± *
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570

* SEE CA MUTCD TABLE 6E-101(CA) FOR SUSTAINED DOWNGRADES STEEPER THAN 3% AND LONGER THAN 1 MILE.

LEGEND

- ➡ DIRECTION OF TRAVEL
- PORTABLE SIGN
- TRAFFIC CONE/DELINEATOR
- ⊕ TYPE II BARRICADE
- FLAGGER
- Y FLAG TREE
- ⚡ FLASHING ARROW SIGN
- ✳ PORTABLE FLASHING BEACON (SEE SIGNAGE NOTE #3)
- ▬ K-RAIL (TYPE 50 CONCRETE BARRIER)
- ◻ CMS CHANGEABLE MESSAGE SIGN



ENGINEERS SEAL

DRAWN BY: _____
DATE: _____
RCE. _____ EXP. _____

SHEET **CITY OF CARLSBAD** SHEETS
ENGINEERING DEPARTMENT

TRAFFIC CONTROL PLAN FOR:

NOTES AND DETAILS

APPROVED: DAVID A. HAUSER

DEPUTY CITY ENGINEER PE 33081 EXPIRES 6/30/08 DATE

DWN BY: _____ PROJECT NO. _____ DRAWING NO. _____

CHKD BY: _____ RVWD BY: _____

CITY OF CARLSBAD
APPROVED

for TRAFFIC ENGINEER DATE